

REMARKS

Claims 1, 3-5 and 7-22 are pending in this application. By this Amendment, the specification and claims 1 and 5 are amended, claims 2 and 6 are canceled without prejudice to or disclaimer of the subject matter contained therein, and claims 9-22 are added. No new matter is added.

I. Formal Matters

The specification is amended to remedy minor informalities noted during Applicants' review. No new matter is added.

II. Pending Claims 1, 3-5 and 8 Define Patentable Subject Matter

The Office Action rejects claims 1-8 under 35 U.S.C. §102(b) over U.S. Patent No. 6,501,374 to King. This rejection is respectfully traversed.

The claimed invention is directed to a seat belt warning apparatus and method that provides primary and secondary audible alerts to a vehicle operator. Although vehicles typically have an audible seat belt warning at vehicle ignition startup, U.S. regulations require this warning to deactivate within 8 seconds of activation. Although secondary warning systems are known, these may operate with a different alert sound. Because of the delay in signals and the difference in sound, a vehicle operator may not readily recognize or associate the secondary warning sound with seat belt deactivation. Thus, a problem exists (see Applicants' section [0005]). Moreover, if the same sound is used, the secondary alert cannot convey a higher level of warning.

To overcome this problem, the various claims recite first and second audible alerts that correspond to different warning levels. Moreover, to better allow recognition of the second audible alert, independent claims 4 and 8 recite that during the second audible alert, an alert chime corresponding to the first warning level is sounded before an alert chime corresponding to the second warning level. Similarly, independent claims 1 and 5 are

amended to incorporate the subject matter of canceled claims 2 and 6, respectively, and recite that the first alert chime is sounded in an initial stage of the second audible alert prior to sounding the second alert chime. Thus, in all pending claims, the second audible alert includes sounding of a chime corresponding to the first warning level, such as same frequency and volume, followed by a second alert chime corresponding to the second warning level. This is supported, for example, by Fig. 3, paragraphs [0009] - [0015], and [0048] - [0049]. In particular, see time t_1 - t_2 where the first alert is activated and times t_3 - t_9 where the second alert is activated. During the second alert, a sound corresponding to the first alert occurs between time period t_3 - t_5 . Then, a second chime occurs in the consecutive time period t_5 - t_9 .

Because the second audible alert starts with the sound corresponding to the initial first alert, the second audible alert can be readily recognized as relating to a seat belt warning, even if the second audible alert is activated after a time delay from expiration of the first audible warning. Moreover, because of the second alert chime, such as the same sound with a different cycle, a higher level of warning can also be conveyed.

King fails to recognize or solve such problems. King discloses sounding of an initial alert upon ignition activation (C4/L17-30). No details of the primary alert frequency or repetition are disclosed. Then, once a certain vehicle speed has been achieved, a second alert is activated consisting of an intermittent chime at 240 rep/min and a frequency of 740 Hz (C4/L55-56).

There is no teaching in King that during the second alert the first chime is sounded before the second chime, as recited in independent claims 1, 4, 5 and 8. The Office Action relies on C4/L17-61 for this feature. However, King specifies use of a single frequency sound during the second alert. The only time the first alert chime is taught to sound is during the primary warning when the ignition is first turned on.

King also fails to teach that the second alert is of the same sound as the first alert, but at a different frequency, as recited in independent claims 1 and 5. As discussed above, no details are provided in King as to the sound used in the first alarm.

Because King fails to teach each and every feature of independent claims 1, 4, 5 and 8, these claims and claims dependent therefrom are not anticipated by King. Moreover, because King does not even appreciate the problems solved by the invention, the various claims would not have been obvious from the teachings of King. Withdrawal of the rejection is respectfully requested.

III. New Claims 9-22 Define Patentable Subject Matter

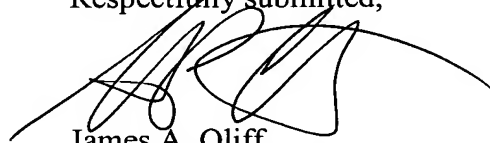
New claims 9-22 are added. Claims 9-22 are allowable for their dependence on allowable base claims and for the additional features recited therein. In particular, claims 9, 12, and 16 specify that subsequent activation of the second audible alert is not based on vehicle speed (see Fig. 3). Claims 10, 13, 14, and 19 specify that the second audible alert sounds the first alert chime for a first period of time and immediately sounds the second alert chime for a consecutive, second period of time (see Fig. 3). Claims 11 and 15 add that the second cycle is about three times shorter than the first cycle (see paragraph [0023]). Claims 17 and 20 add that buckling of the seat belt shuts off the alert (see Fig. 3). Claims 18 and 21 add that upon subsequent detection of seat belt unbuckling, the second audible alert is activated (see Fig. 3). Claim 22 adds that the alert sound is a composite sound of two frequencies and that the second alert has a shorter cycle (see paragraphs [0020] - [0022]).

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3-5 and 7-22 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:

Petition for Extension of Time

Date: October 31, 2005

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